

Collider Accelerator Department

**Title: Source Inspection.
CAD-QAP-702
Rev. A**

Prepared by: D. Passarello

Approved by: D. Lowenstein

Signatures maintained on controlled copy in CAD QA office.

1.0 Purpose

To define the process for source inspection (which may include testing) of purchased and subcontracted materials.

2.0 Scope

The requirements of this document apply to purchased and subcontracted items that will ultimately be delivered to the AGS Department, or shipped to another location designated on the purchase order or contract.

3.0 Policy

3.1 Source inspections at supplier facilities may be imposed by the cognizant engineer or scientist (CE/CS), or requested by the AGS QA Office.

3.2 Source inspection shall be conducted by personnel who are competent to evaluate the specific item or service.

3.3 The results of source inspections, examinations, or tests shall be documented for review by the CE/CS and when appropriate, AGS Division Management.

4.0 Procedure

4.1 The decision to perform source inspection should be made after consideration of the following items:

4.1.1 Critical item is purchased at a level of assembly where the internal quality cannot be verified upon receipt at BNL without costly disassembly or destructive testing;

4.1.2 Special inspection or test equipment, or test environments to verify product conformance with specific requirements cannot be feasibly or economically reproduced or made available at BNL;

4.1.3 Items are to be delivered by the supplier directly to another vendor for additional processing, or to a contract destination other than BNL;

4.1.4 Manpower availability;

4.1.5 The logistics and costs involved in inspecting large and bulk items;

4.1.6 Scheduling requirements.

4.2 If source inspection is required, the CE/CS, in conjunction with QA, will specify the format of the source inspection.

The recommended forms of source inspection are described below:

- 4.2.1 BNL personnel perform specified inspections/tests or examinations of the item or service at various stages of completion, or of the end item or service itself;
- 4.2.2 BNL personnel witness the performance of specific inspections, operations, or processes as it is performed by the seller's personnel;
- 4.2.3 Inspections or audits conducted by authorized third party inspectors.
- 4.3 Source inspections will be scheduled through prior arrangements with the supplier. The terms of such an arrangement will normally be defined in the documentation initially provided to the supplier. Such terms should include as a minimum:
 - 4.3.1 The extent of notification time given to BNL prior to the performance of inspections or tests which BNL is to witness. (Usually no less than five working days.)
 - 4.3.2 Points in the supplier manufacturing/inspection/test plan where "BNL-conducted" or "BNL-witnessed" inspections/tests are conducted. The notification of BNL that these points are approaching is a supplier responsibility.
- 4.4 Prior to performing or witnessing inspections the following items should be verified:
 - 4.4.1 BNL documentation being used by the supplier is at the proper revision level.
 - 4.4.2 Supplier's procedures for inspection and operating equipment to be used in the inspection are approved by the supplier's Quality Assurance Department and/or BNL (if required). These documents will define the quality and parameters of the supplier's product to be inspected and the format for recording inspection data.
 - 4.4.3 All test equipment that requires calibration is within latest calibration interval.
- 4.5 It is the responsibility of the individual performing the inspection on behalf of BNL to see that the inspection data is forwarded to the CE/CS.
- 4.6 Nonconformances detected at the supplier facilities during source inspection shall be documented and held for material review action.
- 4.7 The CE/CS will distribute copies of the source inspection report to the Division of Contracts and Procurement and other appropriate individuals for information and follow-up purposes.